EN/FR

JOHNSON CONTROLS

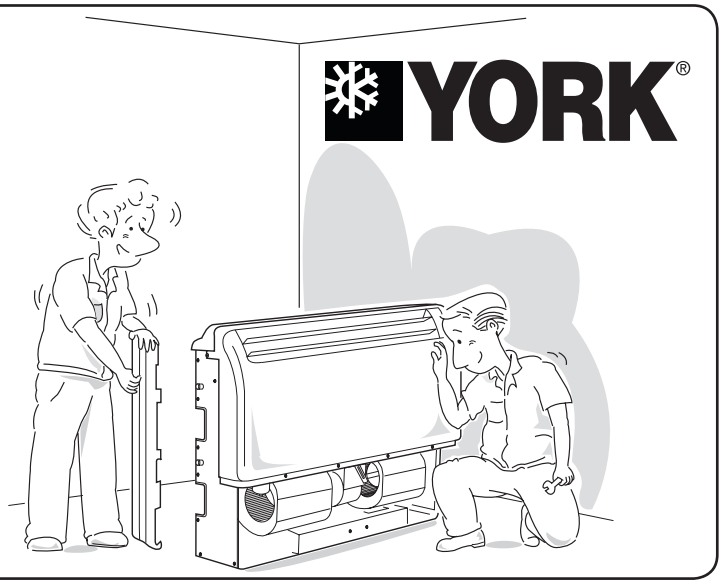
YORK®

ENGLISH

035M00003-000

INSTALLATION & OWNER'S MANUAL

MINISPLIT FLOOR/CEILING AIR CONDITIONER MODELS : YOCC-YOHC 12-60



REQUIRED TOOLS

1. Screw Driver
2. Hexagonal Wrench
3. Torque Wrench
4. Spanner
5. Reamer
6. Hole Core Drill
7. Tape Measure
8. Thermometer
9. Manifold Guage
10. Gas Leak Detector
11. Vacuum Pump
12. Pipe Clamp
13. Pipe Cutter
14. Flare Tool Set
15. Electrical Circuit Tester

EXTENDED PARTS

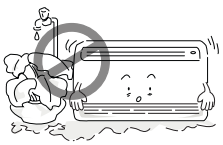
1. Refrigerant Pipe : See Technical Specification
2. Pipe Insulation Material (Polyethylene foam 9 mm thick)
3. Vinyl Tape
4. Putty

SAFETY PRECAUTIONS

- Please read this installation manual carefully before starting installation of the unit.
- This air conditioning system contains refrigerant under pressure, rotating parts and electrical connection which may be dangerous and can cause injury. Installation and maintenance of this air conditioning system should only be carried out by trained and qualified personnel.
- After unpacking, please check the unit carefully for possible damage.
- Before undertaking any work on the unit, make sure that the power supply has been disconnected.

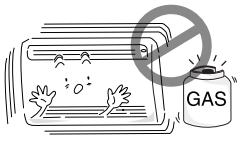
CAUTIONS FOR INSTALLATION

- Do not store or unpack the unit in a wet area or expose to rain or water.



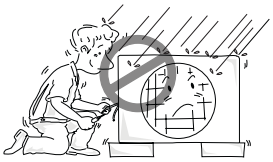
It may cause the unit to short circuit and may result electric shocks or fire.

- Do not install in a place where fl ammable gas may leak.



It may cause fire.

- Do not conduct installation in wet area or in the rain.



It is a high risk to cause the electrical shocks.

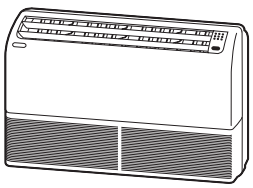
- This system is designed for domestic or residential use only.

If used in certain environments, such as a manufacturing workplace, the equipment may not function efficiently.

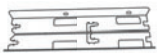
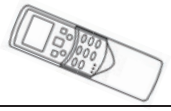
PART LIST

INDOOR UNIT

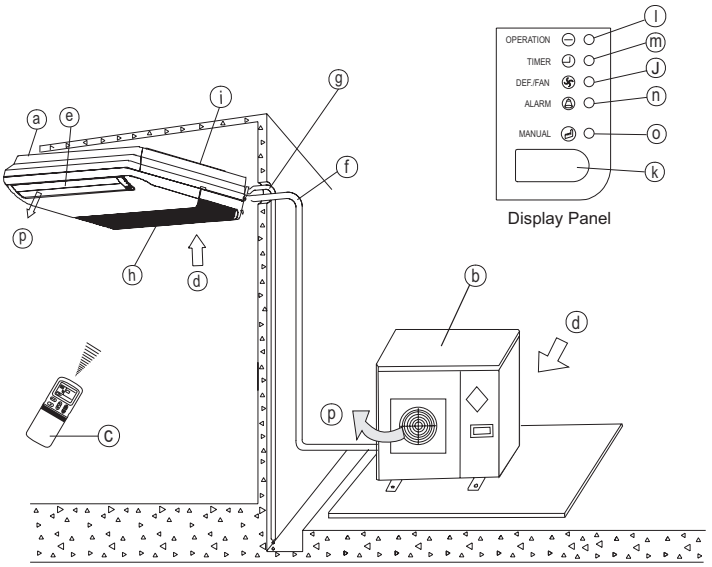
➽✱YOCC-YOHC



INSTALLATION ACCESSORIES

Description	Qty	USE
Hook	2	For wall mounting installation
Hanging arm 	2	For ceiling installation
Tapping Screw (ST2.9x10-C-H)	2	
Remote Controller 	1	
Frame		
Alkalina dry batteries (AM4)	1	
Install & Owner's manual and User's guide	2	

➽✻Ceiling & Floor Type



NOTICE!

The chart based on one model of our product is for reference only, which may be different from the unit you purchased.

NAMES AND FUNCTIONS

a	indoor unit	**b**	outdoor unit
c	remote controller	**d**	air-in
e	air flow louver (at air outlet)	**f**	connecting pipe
g	drain hose	**h**	air inlet (with air filter in it)
i	installation part	**j**	**DEF./FAN indicator** (For cooling and heating type, it's DEF., for cooling only type, it's FAN)
k	infrared signal receiver	**l**	operation lamp
m	timer indicator	**n**	alarm indicator
o	temporary button	**p**	air-out

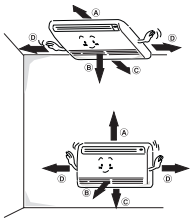
PREPARATION BEFORE INSTALLATION

- Before doing any work, check the interior power supply cord and the main breaker capacity are sufficient and the installation area is sufficient and complies with the requirements.
- Check that the power supply available agrees with nameplate voltage.
- Electrical work, wiring and cables must be performed in compliance with national and local wiring codes and standard.
- Do not use the extension cables. In the case extended cables are needed, use the terminal block.

SELECTION OF THE LOCATION

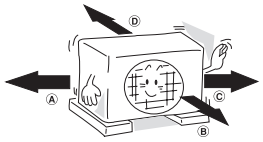
➽✻Select a place which provides the space around the units as shown in the diagram below.

INDOOR UNIT



Dimension (mm)	YOCC-YOHC							
	9	12	18	25	35	45	55	65
A	2300	2300	2300	2300	2300	2300	2300	2300
B	2300	2300	2300	2300	2300	2300	2300	2300
C	5	5	5	5	5	5	5	5
D	120	120	120	120	120	120	120	120

OUTDOOR UNIT



Dimension (mm)	YOCC-YOHC							
	9	12	18	25	35	45	55	65
A	300	300	300	300	300	300	300	300
B	2000	2000	2000	2000	2000	2000	2000	2000
C	600	600	600	600	600	600	600	600
D	300	300	300	300	300	300	300	300

INSTALLATION

INSTALLATION SITE

➽✻To install the air conditioner in the following types of environments, consult the shop.

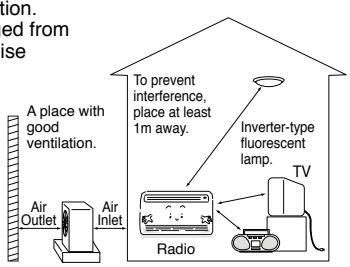
- Places with an oily ambient or where steam or soot occurs.
- Salty or corrosive environments such as coastal areas.
- Places where sulfide gas occurs such as hot springs.

The drain from the outdoor unit must be discharged to a place of good drainage.

CONSIDER NUISANCE TO YOUR NEIGHBOURS FROM NOISES

➽✻For installation choose a place as described below.

- A place solid enough to bear the weight of the unit and which does not amplify the operation noise or vibration.
- A place from where the air discharged from the outdoor unit or the operation noise will not annoy your neighbours.



ELECTRICAL WORK

- For power supply, be sure to use a separate power circuit dedicated to the air conditioner.

SYSTEM RELOCATION

- Relocating the air conditioner requires specialized knowledge and skills. Please consult the shop where you bought the air conditioner if relocation is necessary for moving or remodelling.

WALL MOUNTING INSTALLATION

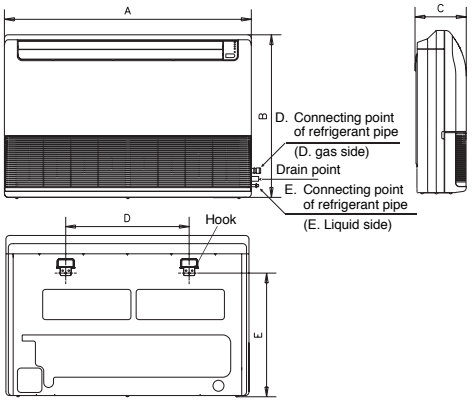


Chart 5

1. Fix the hook with tapping screw onto the wall. (Refer to Chart 6)

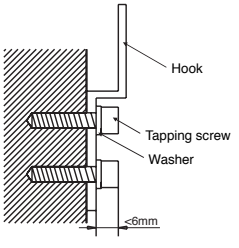


Chart 6

2. Hang the indoor unit on the hook.

CEILING INSTALLATION

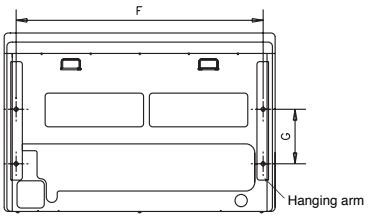


Chart 7

1. Remove the side board and the grille. (Refer to Chart 8)
   (For models 48000 and 60000 Btu/h, do not remove the grille.)

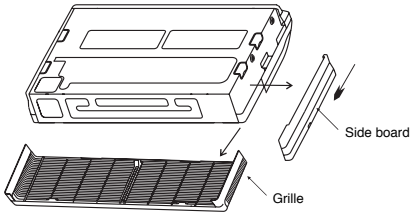


Chart 8

2. Locate the hanging arm on the hanging screw bolt. (Refer to Chart 9)
   Prepare the mounting bolts on the unit. (Refer to Chart 10)

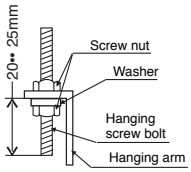


Chart 9

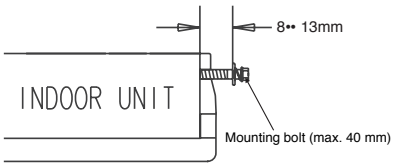


Chart 10

3. Hang the unit on the hanging arm by sliding backward. Securely tighten the mounting bolts on both sides. (Refer to Chart 9)

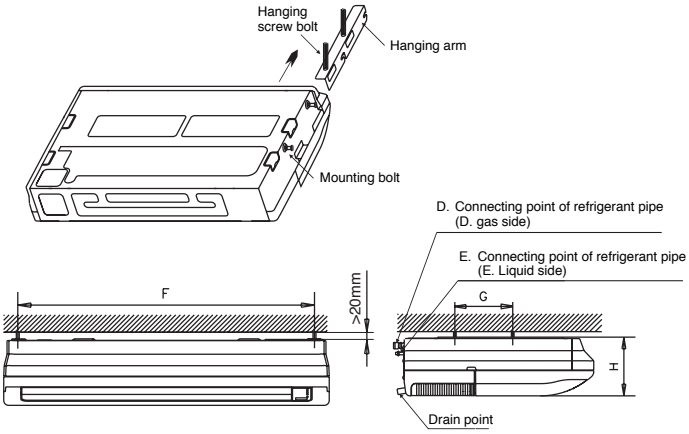


Chart 11

⚠ **ATTENTION:** The figures above are based on model with 18000 Btu/h as rated capacity, which may differ from the unit you purchased.

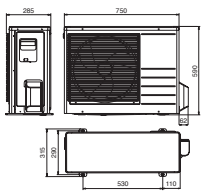
The dimension of the unit

Capacity (Btu/h)	A	B	C	D	E	F	G	H
12000-24000 Btu/h	990	660	206	505	506	907	200	203
36000 Btu/h	1280	660	206	795	506	1195	200	203
48000-60000 Btu/h	1670	680	244	1070	450	1542	200	240

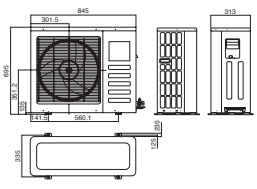
- Note: The dimension of 12000 Btu/h and 24000 Btu/h are the same
  The dimension of 48000 Btu/h and 60000 Btu/h are the same

Outdoor unit

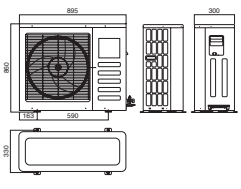
➽✻YODC-YOJC 12



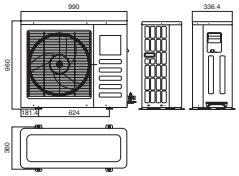
➽✻YODC-YOJC 18



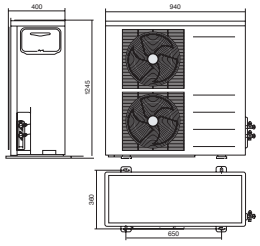
➽✻YODC-YOJC 24



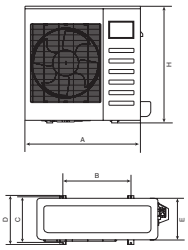
➽✻YODC-YOJC 30-36



➽✻YODC-YOJC 48-60

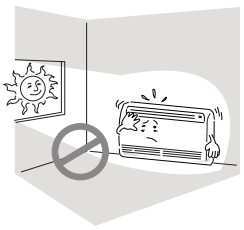


➽✻DC Inverter R-410A

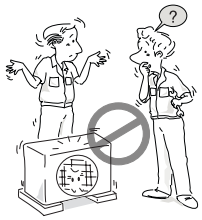


MODEL	A	B	C	D	E	H	REMARK
18	840	550	335	360	310	677	R-410A
24	894	590	333	355	302	860	
36	990	624	366	396	340	960	
48	940	600	376	400	340	1245	

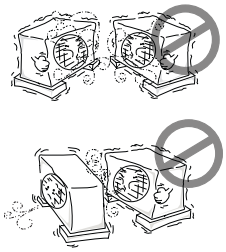
INSTALLATION IN THE FOLLOWING PLACES MAY RESULT IN TROUBLE



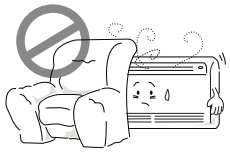
Installation of the indoor unit in direct sun light.



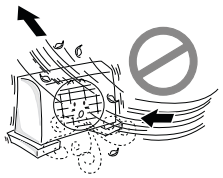
Installation in the unit in wrong direction.



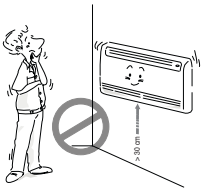
Installation of outdoor units too close or, blowing discharged air into each other.



Installation of the indoor unit in a place where there is an obstacle near the air inlet or outlet.



Installation of the outdoor unit in a place exposed regularly to a strong wind.



Installation of the indoor unit at too high > 30 cm a position.

INDOOR UNIT INSTALLATION

Installing Ø10 hanging screw bolts. (4 bolts)

- Please refer to the following figure for the distance measurement between the screw bolts.
- Please install with Ø10 hanging screw bolts.
- The handling to the ceiling varies from the constructions, consult the construction personnels for the specific procedures.

1. The size of the ceiling to be handled ... ... do keep the ceiling flat. Consolidate the roof beam for possible vibration.
2. Cut off the roof beam.
3. Strengthen the place cut off, and consolidate the roof beam.

- Carry out the pipe and line operation in the ceiling after finishing the installation of the main body. While choosing where to start the operation, determine the direction of the pipes to be drawn out. Especially in case there is a ceiling, position the refrigerant pipes, drain pipes, indoor & outdoor lines to the connection places before hanging up the machine.
- The installation of hanging screw bolts.

Wooden construction

Put the square timber traversely over the roof beam, then install the hanging screw bolts. (Refer to Chart 1)

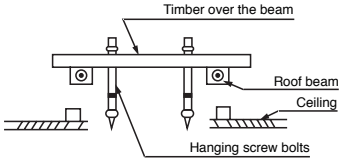


Chart 1

New concrete bricks

Inlaying or embedding the screw bolts. (Refer to Chart 2)

Chart 2

For Original concrete bricks

Use embedding screw bolt. (Refer to Chart 3)

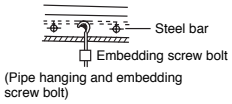


Chart 3

Steel roof beam structre

Install and use directly the supporting angle steel. (Refer to chart 4)

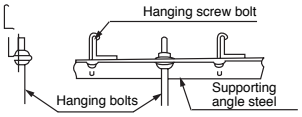


Chart 4

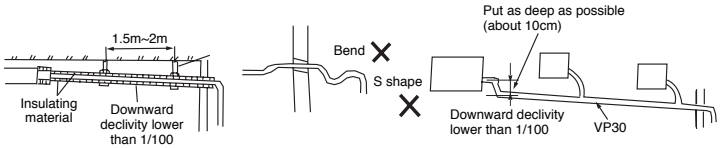
CONNECT THE DRAIN PIPE

1. Install indoor unit drain pipe

The outlet has PTI screw thread, Please use sealing materials and pipe sheath (fitting) when connecting PVC pipes.

Cautions

- The drain pipe of indoor unit must be heat insulated, or it will condense dew, as well as the connections of the indoor unit.
- Hard PVC binder must be used for pipe connection, and make sure there is no leakage.
- With the connection part to the indoor unit, please be noted not to impose pressure on the side of indoor unit pipes.
- When the declivity of the drain pipe downwards is over 1/100, there should not be any winding.
- The total length of the drain pipe when pulled out traversely shall not exceed 20m, when the pipe is over long, a prop stand must be installed to prevent winding.
- Refer to the figures on the right for the installation of the pipes.



2. Drainage test

- Check whether the drainpipe is unhindered
- New built house should have this test done before paving the ceiling.

3. Drain Elbow Installation

Fit the seal into the drain elbow, then insert the drain elbow into the base pan hole of outdoor unit, rotate 90° to securely assemble them. Connect the drain elbow with an extension drain hose (Locally purchased), in case of the condensate draining off the outdoor unit during the heating mode. (Refer to Chart 17)

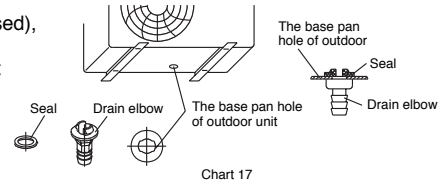


Chart 17

WIRING

➢✱Attaching wiring

1. The air conditioner should use separate power supply with rated voltage
2. The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
3. The wiring work should be done by qualified persons according to circuit drawing.
4. A leakage protector should be installed according to the National Standard concerning electrical appliance.
5. Be sure to locate the power wiring and the signal wring well to avoid cross-disturbance and their contact with connecting pipe or stop valve body.
6. The wiring attached to this air conditioner is 10m long. Be sure to prolong it with wiring of the same type and proper length if necessary. Generally, do not twist two wiring together unless the joint is soldered well and covered with insulator tape.
7. Do not turn on the power until you have checked carefully after wiring.

➢✱The Specification of Power

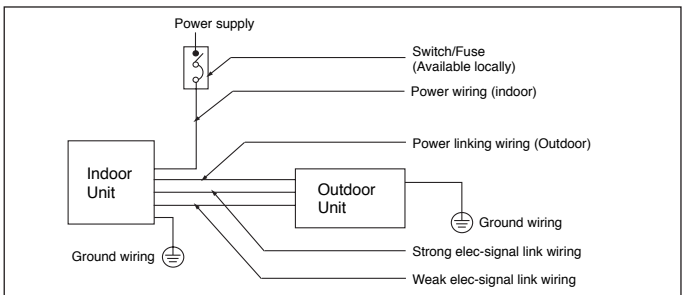
TYPE		12000~18000 Btu/h (Cooling&Heating)	24000-36000 Btu/h (Cooling&Heating)	36000-60000 Btu/h (Cooling&Heating)
POWER	PHASE	1-PHASE	1-PHASE	3-PHASE
	FREQUENCY AND VOLT	220-240V~, 50Hz	220-240V~, 50Hz	380V 3N~, 50Hz
CIRCUIT BREAKER/FUSE (A)		20/16	40/25	40/20
INDOOR UNIT POWER WIRING (mm^2)		———	3x2.5	5x2.5
INDOOR/OUTDOOR CONNECTING WIRING (mm^2)	GROUND WIRING	2.0	2.5	2.5
	OUTDOOR UNIT POWER WIRING	3x2.5	3x2.5	5x2.5
	STRONG ELECTRIC SIGNAL	5x2.0 (3x2.0)	3x2.0 (2x2.0)	3x2.0 (2x2.0)
	WEAK ELECTRIC SIGNAL	1-core sheild wire 1x0.5mm^2	2-core sheild wire 2x0.5mm^2	———

TYPE		12000~18000 Btu/h (Cooling Only)	24000-36000 Btu/h (Cooling Only)	36000-60000 Btu/h (Cooling Only)
POWER	PHASE	1-PHASE	1-PHASE	3-PHASE
	FREQUENCY AND VOLT	220-240V~, 50Hz	220-240V~, 50Hz	380V 3N~, 50Hz
CIRCUIT BREAKER/FUSE (A)		40/25	40/20	40/25
INDOOR UNIT POWER WIRING (mm^2)		3x2.5	3x2.5	5x2.5
INDOOR/OUTDOOR CONNECTING WIRING (mm^2)	GROUND WIRING	2.0	2.0	2.0
	OUTDOOR UNIT POWER WIRING	———	3x2.0	5x2.0
	STRONG ELECTRIC SIGNAL	3x2.0	1x2.0	1x2.0
	WEAK ELECTRIC SIGNAL	———	———	———

Chart 18

➢✱Wiring Chart

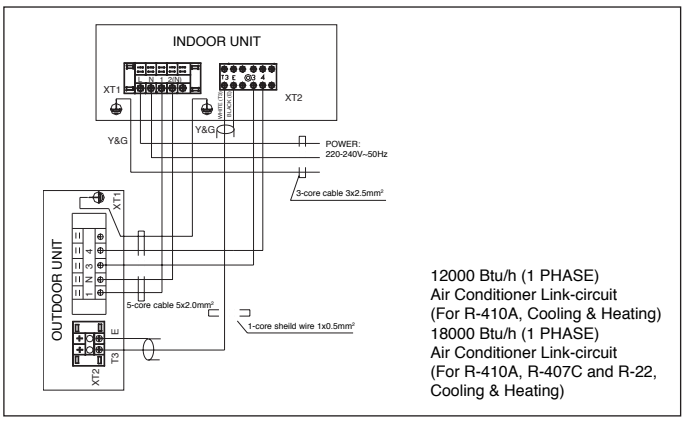
Installing wiring chart, refer to link circuit chart for details.



- Ground the air conditioner properly in case to affect its anti-interference function

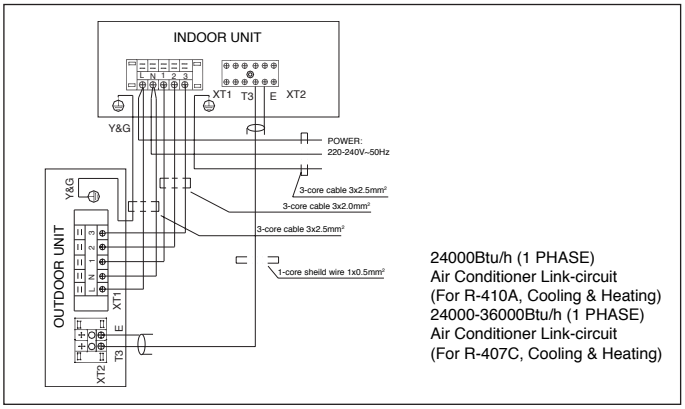
Chart 19

⚠ **CAUTION:** When wiring, please choose the corresponding chart, or it may cause damage.



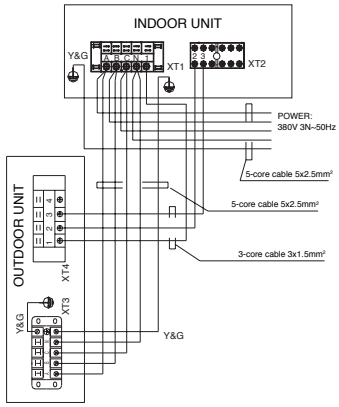
12000 Btu/h (1 PHASE)
Air Conditioner Link-circuit
(For R-410A, Cooling & Heating)
18000 Btu/h (1 PHASE)
Air Conditioner Link-circuit
(For R-410A, R-407C and R-22, Cooling & Heating)

Chart 20



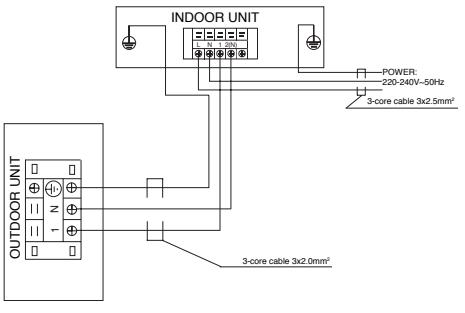
24000Btu/h (1 PHASE)
Air Conditioner Link-circuit
(For R-410A, Cooling & Heating)
24000-36000Btu/h (1 PHASE)
Air Conditioner Link-circuit
(For R-407C, Cooling & Heating)

Chart 21



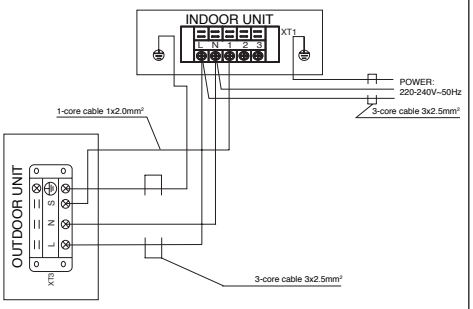
36000~60000 Btu/h (3 PHASE)
Air Conditioner Link-circuit (For R-410A, R-407C and R-22, Cooling & Heating)

Chart 22



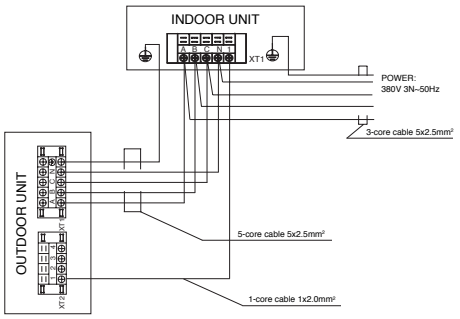
12000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-410A and R-407C, Cooling Only)
18000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-410A, Cooling Only)

Chart 23



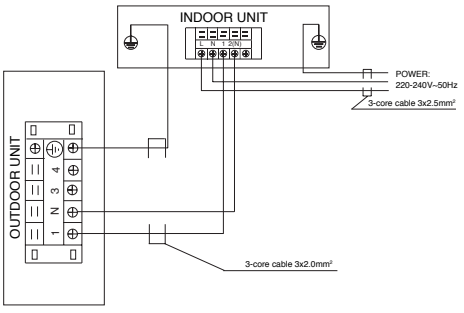
24000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-410A, Cooling Only)

Chart 24



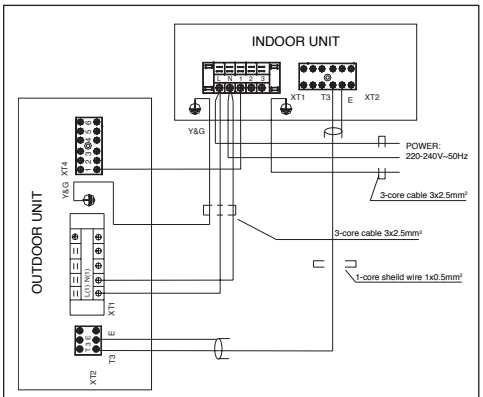
36000~60000 Btu/h (3 PHASE)
Air Conditioner Link-circuit (For R-410A, R-407C and R-22, Cooling Only)

Chart 25



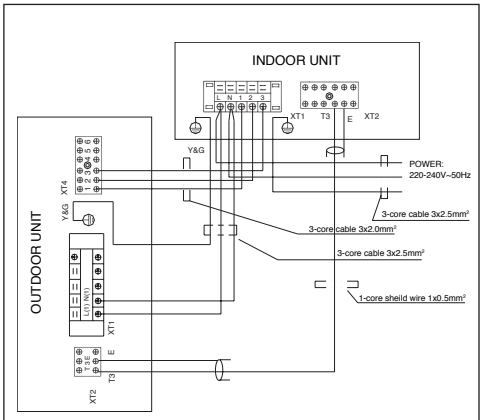
18000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-22, Cooling Only)

Chart 26



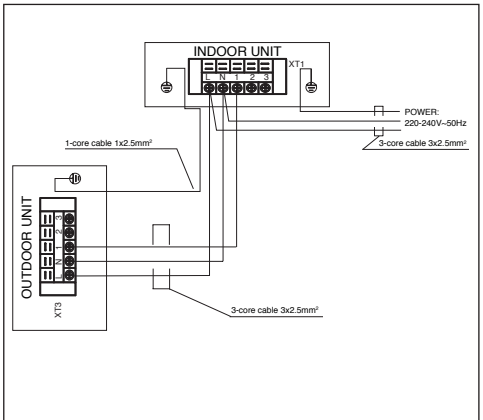
24000~36000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-22, Cooling only)

Chart 27



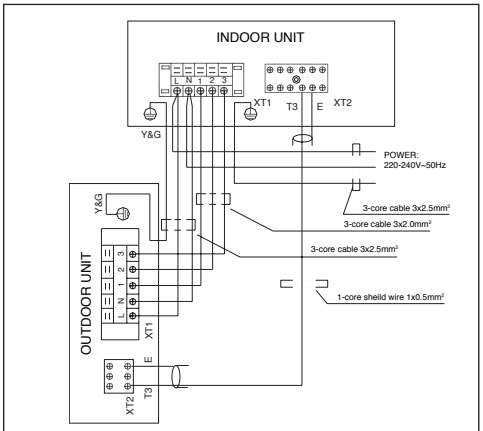
24000~36000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-22, Cooling & Heating)

Chart 28



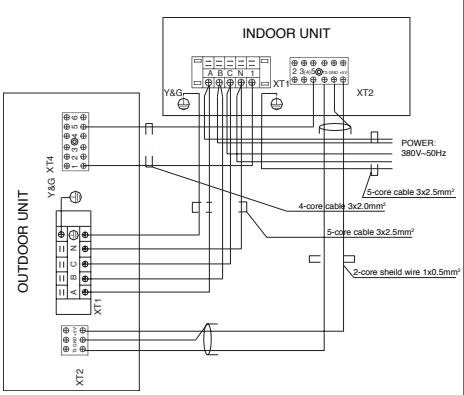
24000~36000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-407C, Cooling Only)

Chart 29



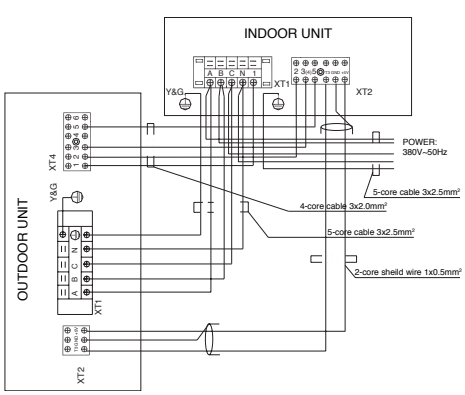
30000~36000 Btu/h (1 PHASE)
Air Conditioner Link-circuit (For R-407C, Cooling & Heating)

Chart 30



24000~30000 Btu/h (3 PHASE)
Air Conditioner Link-circuit (For R-407C, Cooling only)

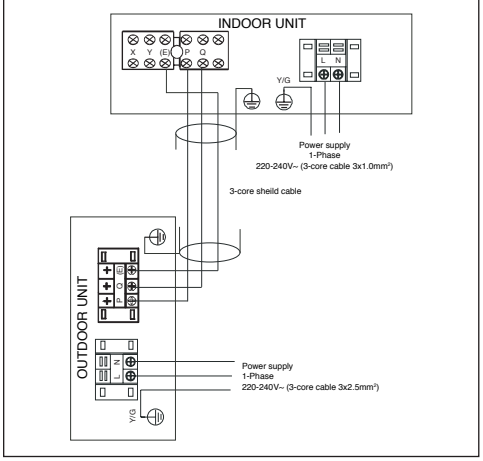
Chart 31



24000~30000 Btu/h (3 PHASE)
Air Conditioner Link-circuit (For R-407C, Cooling & Heating)

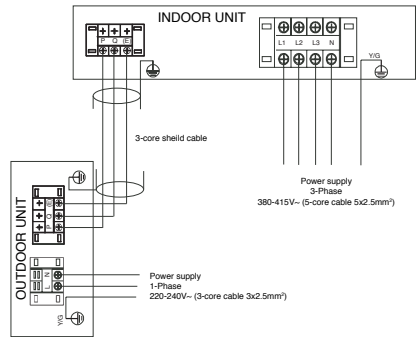
Chart 32

DC Inverter R-410A

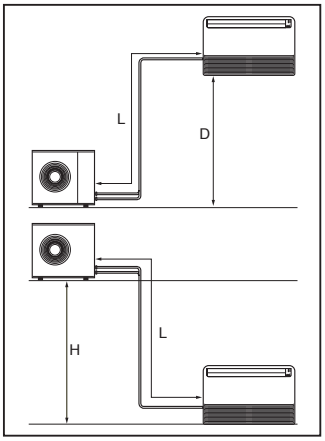


For 18000-24000 Btu/h

DC Inverter R-410A



For 36000-60000 Btu/h



➤✱Refrigerant Piping Connections (FLARE Connections)

To avoid alteration of unit capacities, check that piping lengths and changes in elevation are kept to a strict minimum.

Before connection the refrigerant lines, follow the procedures below (if precharged connection lines are not supplied):

– Select copper pipe diameters according to the size of unit to be installed.
– Install the refrigeration lines, checking that no foreign bodies get inside the piping.
– Install the flare connectors and flare the ends of the pipes.

➤✱Maximum Piping Lengths

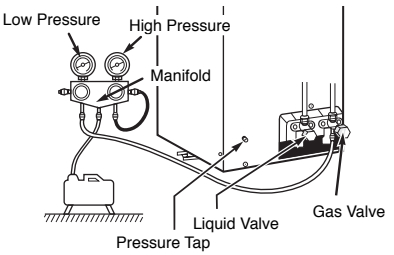
Unit size	09	12	18	25	35	45	55	65
D (m)	12	15	15	22	22	26	26	26
L (m)	15	18	18	25	25	30	30	30
H (m)	10	12	12	20	20	24	24	24

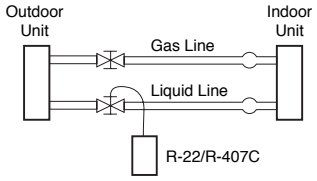
Note : Where the difference in elevation between the indoor unit and the outdoor unit is greater than 5 meters, install an oil trap every 5 meters.

The suction line must have a 2% gradient up to the compressor on horizontal sections.
Where piping lengths are unusually long and include a large number of oil traps, it may be necessary to adjust to compressor charge.

Refrigerant charge to be added per extra metre of piping length when more than 7.5 meters.

Unit size	07	09	12	18	25	35	45	55	65
g/m	15	15	15	40	40	40	60	60	60





This unit is shipped complete with a charge of R-22/R-407C refrigerant that will be sufficient for an interconnecting piping length of 7.5 meters.

TEST OPERATION

CHECK THIS ITEM BEFORE START OPERATION

Outdoor

Check the flare nut connections, valve stem cap connections and service cap connections for gas leak with a leak detector or soap water.

Indoor

- Check the unit is firmly fixed.
- Check the connecting pipes are tighten securely.
- Check the pipe insulation.
- Check the drainage.
- Check the connection of the grounding wire.

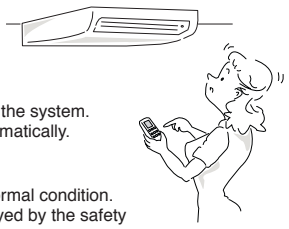
TROUBLESHOOTING GUIDE

Problem	Probable cause	Remedy
A. The air conditioner does not run.	1. Power Failure. 2. Fuse blown or circuit breaker open. 3. Voltage is too low. 4. Faulty contactor or relay. 5. Electrical connections loose. 6. Thermostat adjustment too low (in heating mode) or too high (in cooling mode). 7. Faulty Capacitor. 8. Incorrect wiring, terminal loose. 9. Pressure switch tripped.	1. Wait for Power resume. 2. Replace the fuse or reset the breaker. 3. Find the cause and fix it. 4. Replace the faulty component. 5. Retighten the connection. 6. Check Thermostat setting. 7. Find the cause then replace Capacitor. 8. Check and retighten. 9. Find the cause before reset.
B. The outdoor fan runs but the compressor will not start.	1. Motor winding cut or grounded. 2. Faulty Capacitor.	1. Check the wiring and the compressor winding resistance. 2. Find the cause then replace Capacitor.
C. There is insufficient heating or cooling.	1. There is a gas leak. 2. Liquid and gas line insulated together. 3. The room was probably very hot (cool) when you started the system.	1. Remove charge, repair, evacuate and recharge. 2. Insulate them separately. 3. Wait while unit has enough time to cool the room.
D. The compressor run continuously.	1. Thermostat adjustment too low (in heating mode) or too high (in cooling mode). 2. Faulty fan. 3. Refrigerant charge too low, leak. 4. Air or incondensables in refrigerant circuit.	1. Check Thermostat setting. 2. Check condenser air circulation. 3. Find leak, repair and recharge. 4. Remove charge, evacuate and recharge.
E. The compressor starts but shuts down quickly.	1. Too much or too little refrigerant. 2. Faulty compressor. 3. Air or incondensables in refrigerant circuit. 4. Changeover valve damaged or blocked open (heat pump unit).	1. Remove charge, evacuate and recharge. 2. Determine the cause and replace compressor. 3. Remove charge, evacuate and recharge. 4. Replace it.
F. Clicking sound is heard from the air conditioner.	In heating or cooling operation any plastic parts may expand or shrink due to a sudden temperature change in this event, a clicking sound may occur.	In heating or cooling operation any plastic parts may expand or shrink due to a sudden temperature change in this event, a clicking sound may occur.

NORMAL FUNCTION OF THE AIR CONDITIONER

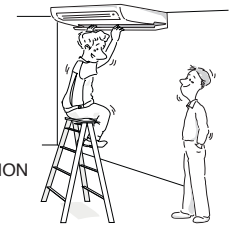
The following symptoms do not indicate air conditioner malfunction.

1. The system does not operate



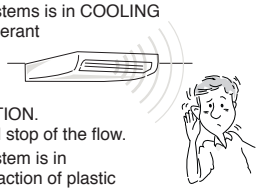
- The system does not restart immediately after the ON/OFF button is pressed.
  If the OPERATION lamp lights, the system is in normal condition.
  The safety device operates to prevent overload of the system.
  After 3 minutes, the system will turn on again automatically.
- The system does not restart immediately when TEMPERATURE SETTING changed.
  If the OPERATION lamp lights, the system is in normal condition.
  If the timer light is flashing operation is being delayed by the safety device. It does not restart immediately because the compressor has been stopped and requested to start within the delay period.
  A safety device operates to prevent overload of the system.
  After 3 minutes, the system will turn on again automatically.
- The system does not start immediately after the power supply is turned on.
  Wait one minute until the microcomputer is prepared for operation.

1.1 White mist comes out of a unit



- When humidity is high during cooling operation.
  (In dusty locations or after construction work)
  If the inside of an indoor unit is contaminated, the temperature distribution inside a room may become uneven. It is necessary to clean the inside of the indoor unit. The unit should be cleaned by a qualified service person familiar with the unit.
- When the system is changed over to HEATING OPERATION or after DEFROST OPERATION. Moisture generated on the coil by the DEFROST becomes vapour and exists.

1.2 Noise of air conditioners

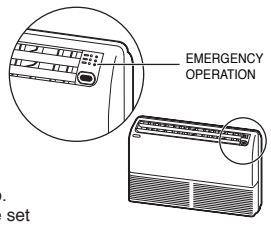


- A continuous flow “Shuh” sound is heard when the systems is in COOLING or DEFROST OPERATION. This is the sound of refrigerant gas flowing through both indoor and outdoor units.
- A “Shuh” sound which is heard at the start or immediately after operation. It may also be heard at the start or immediately after a DEFROST OPERATION.
  This is the noise of refrigerant caused by the start and stop of the flow.
- A “Pishi-pishi” squeaking sound is heard when the system is in operation or just after operation. Expansion and contraction of plastic parts caused by temperature change makes this noise.

1.3 Dust from the units

- Dust may blow out from the unit when starting after long off cycles. Dust absorbed by the unit blows out.
- The units give off odours. The unit absorbs the smell of rooms, furniture, cigarettes, etc., and then emits them.

EMERGENCY OPERATION



- Units are equipped with a switch to run emergency operation mode. Pushing the emergency switch turns the unit on; pushing it again turns if off (toggle action). During emergency operation, the remote controller cannot be used and the power LED light will flash at intervals, while the other LED lights will indicate the operation of the Diagnostic Codes.
  In Emergency Operation and cooling units the temperature will be set at 24°C and the fan on Auto. Heating units will switch to auto mode at a temperature set point of 24°C and the fan will run on auto mode.
- After a power failure the unit restarts automatically in the same mode as before the failure, when power is resumed.

PROTECTION FUNCTION

Auto Restart Function

- The unit will automatically restart after loss of the electrical power supply. When power is restored; the unit operation will restart according to all parameters set before the loss of power.

ANTI-ICE and ANTI-OVERHEAT

- This feature is used to prevent the indoor unit from freezing during cool or dry operation and overheating in heat mode. During execution of anti-ice operation and anti-overheating, the compressor will stop operating and the fan will continue to run until the coil temperature reaches predetermined set points, at which time the unit will resume normal operation.

Low Voltage

- The feature is used to protect against any damage to the unit caused by fluctuation of voltage. If voltage is lower than the lower limit for approximately 10 seconds or longer, compressor operation will be temporarily stopped. Normal operation will resume when the voltage returns above the set limit for a minimum of 10 seconds. If the time elapsed is less than 3 minutes then the compressor start up will be delayed until 3 minutes has passed.

Filter Care and Filter Alarm

- Replace Air Purifying filter if fitted.
- The filters should be cleaned regularly, i.e, once a month, or more frequently depending on conditions. The control is equipped with a filter alarm; After a certain numbers of hours of operation, flashing lights will indicate that it is time to clean the filter. The alarm is reset by pressing the filter button or the transmitter.

MAINTENANCE

The units are designed to operate for long periods of time with a minimum of maintenance. However, the following operation must be performed regularly.

	Maintenance Operations	Recommended Frequency
Air filter	Clean	Every month or more often if necessary
Unit casing	Clean	Every month or more often if necessary
Drain pan and evacuation piping	Clean and check for obstructions	Each season before start up*
Indoor/outdoor coils	Clean	Each season before start up*
Compressor	No need	

* This operation must be carried out by qualified personnel only.

BEFORE MAINTENANCE

S **Turn off the main breaker or disconnect the main power supply.**

Notes

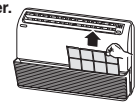
- Don’t spill water : There is a danger of electric shock.
- Don’t used petrol, paint thinner, benzene or polishing agents : They may deform or scratch the unit.

CLEANING THE UNIT

Wipe the unit with a soft dry cloth only.
If the unit is very dirty, wipe it with a cloth soaked in warm water (Not more than 40°C).

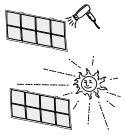
CLEANING THE AIR FILTER

1. Remove the air filter.
Open front grille and pull fillter outward front grille.

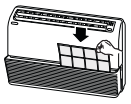


2. Cleaning
If the fillter is very dirty, clean it with water (approx 30°C).

3. Drying
Drying the air filter by hair drying or direct sunlight.



4. Reinstall the air filter.



TECHNICAL SPECIFICATION

Floor/Ceiling YOCC (YOEC-YODC) COOLING R-410A 50Hz Rev.291106

Model	Set		YOCC12FSA(B)AAR	YOCC18FSA(B)AAR	YOCC24FSA(B)AAR	YOCC30FSA(B)ACR	YOCC30FSA(B)AAR	YOCC36FSA(B)AAR	YOCC36FSA(B)ACR	YOCC48FSA(B)ACR	YOCC60FSA(B)ACR
	Indoor unit		YOEC12FS-A(B)AR	YOEC18FS-A(B)AR	YOEC24FS-A(B)AR	YOEC30FS-A(B)CR	YOEC30FS-A(B)AR	YOEC36FS-A(B)AR	YOEC36FS-A(B)CR	YOEC48FS-A(B)CR	YOEC60FS-A(B)CR
	Outdoor Unit		YODC12FS-A(B)AR	YODC18FS-A(B)AR	YODC24FS-A(B)AR	YODC30FS-A(B)CR	YODC30FS-A(B)AR	YODC36FS-A(B)AR	YODC36FS-A(B)CR	YODC48FS-A(B)CR	YODC60FS-A(B)CR
Power supply		Ph-V-Hz	1,220-240V,50Hz	1,220-240V,50Hz	1,220-240V,50Hz	3,380V,50Hz	1,220-240V,50Hz	1,220-240V,50Hz	3,380V,50Hz	3,380V,50Hz	3,380V,50Hz
Cooling	Capacity	Btu/h	12,000	18,000	24,000	30,000	30,000	36,000	36,000	48,000	60,000
		kW	3.5	5.4	7.1	9.2	9.2	10.5	10.5	14	17
		kcal/h	3,024	4,536	6,048	7,560	7,560	9,072	9,072	12,096	15,120
	Input	W	1,200	1,900	2,600	3,450	3,450	3,800	3,800	4,900	5,800
	Rated current	A	5.3	8.5	12.1	6.4	16.4	19.2	6.4	8.2	9.8
Moisture Removal		L/h	1.2	1.8	2.4	3	3	3.6	3.8	4.8	6
Max. input consumption		W	1,400	2,600	3,300	5,200	5,200	5,200	5,200	6,100	7,200
Max. current		A	7.2	13	16.5	8.8	25	26.3	8.8	10.3	12.2
Starting current		A	26	36.8	61	97	97	97	61	66	67
Compressor	Type		ROTARY	ROTARY	ROTARY	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Input	W	1,145	1,870	2,430	3,650	3,650	3,650	3,650	4,750	5,750
	Rated current (RLA)	A	5.3	8.75	11.4	6.58	17.65	17.65	6.58	8.22	9.77
	Locked rotor Amp (LRA)	A	26	36.8	61	61	97	97	61	66	67
	Thermal protector		Inner	Inner	Inner	Inner	Inner	Inner	Inner	Inner	Inner
	Capacitor	μF	35/370μF/V	50/370μF/V	50/400μF/V	/	60μF/440V	60μF/440V	/	/	/
Indoor fan motor	Input	W	104/98	110/104/98	110/104/98	142/134/132	142/134/132	142/134/132	142/134/132	118/108/101	118/108/101
	Capacitor	μF	1.5μF/450V	2.5μF/450V	2.5μF/450V	3.5μF/450V	3.5μF/450V	3.5μF/450V	3.5μF/450V	2.5μF/450V	2.5μF/450V
	Speed (Hi/Mid/Low)	r/min	1,190/1,000/890	1,280/1,190/1,000	1,280/1,190/1,000	1,310/1,200/1,000	1,310/1,200/1,000	1,310/1,200/1,000	1,310/1,200/1,000	820/695/620	820/695/620
Indoor coil	Number of rows		2	3	3	3	3	3	3	3	3
	Fin spacing	mm	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	Fin type		Hydrophilic aluminum								
	Tube outside dia.and type	mm	Ø9.53 innergroove tube								
	Coil length □ height □ width	mm	804□254□44	804□254□66	804□254□66	905□203□66	905□203□66	905□203□66	905□203□66	1,150□254□66	1,150□254□66
Indoor air flow (Hi/Mid/Low)		m³/h	600/480/400	800/600/500	1,000/900/700	1,200/1,000/800	1,400/1,200/1,000	1,400/1,200/1,000	1,400/1,200/1,000	2,000/1,800/1,600	2,000/1,800/1,600
Indoor noise level (Hi/Mid/Low)		dB(A)	43/41/38	43/41/38	45/43/40	45/43/40	45/43/40	45/43/40	45/43/40	47/45/42	47/45/42
Indoor unit	Dimension (W*H*D)	mm	995□660□198	995□660□198	995□660□198	1,285□660□198	1,285□660□198	1,285□660□198	1,285□660□198	1,670□680□240	1,670□680□240
	Packing (W*H*D)	mm	1,075□744□278	1,075□744□278	1,075□744□278	1,365□744□278	1,365□744□278	1,365□744□278	1,365□744□278	1,764□760□329	1,764□760□329
	Net/Gross weight	kg	30/37	30/37	30/37	34/42	34/42	34/42	34/42	52/62	52/62
Outdoor fan motor	Input	W	56	130	130	307	307	307	307	138+156	138+156
	Capacitor	μF	2.5μF/450V	2.5μF/450V	3μF/450V	10μF/450V	10μF/450V	10μF/450V	10μF/450V	3.5□2μF/450V	3.5□2μF/450V
	Speed	r/min	800	750	800	740	740	740	740	800	800
Outdoor coil	Number of rows		2	2	2	2	2	2	2	2	2
	Fin spacing	mm	1.4	1.7	1.5	1.7	1.7	1.7	1.7	1.8	1.8
	Fin type		Unhydrophilic aluminum								
	Tube outside dia. and type	mm	Ø9.53, Innergroove tube								
	Coil length □ height □ width	mm	651□559□44	775□660□44	850□810□44	955□915□44	955□915□44	955□915□44	955□915□44	715□1,220□44	715□1,220□44
Outdoor air flow		m³/h	2,100	2,400	3,000	5,000	5,000	5,000	5,000	6,000	6,000
Outdoor noise level		dB(A)	43	48	55	57	57	57	57	58	58
Outdoor unit	Dimension (W*H*D)	mm	760□590□285	845□695□335	895□860□330	990□960□360	990□960□360	990□960□360	990□960□360	940□1,245□340	940□1,245□340
	Packing (W*H*D)	mm	887□655□355	970□770□395	1,043□915□395	1,120□1,090□435	1,120□1,090□435	1,120□1,090□435	1,120□1,090□435	1,058□1,380□435	1,058□1,380□435
	Net/Gross weight	kg	44/48	57/62	68/70	90/102	90/102	90/102	90/102	112/127	112/127
Refrigerant type/Quantity		g	R-410A/1,100	R-410A/2,000	R-410A/2,600	R-410A/3,000	R-410A/3,000	R-410A/3,000	R-410A/3,000	R-410A/3,700	R-410A/3,900
Design pressure (high side/low side)		MPa	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5
Refrigerant piping	Liquid side	mm (inch)	6.35 (1/4)	6.35 (1/4)	9.53 (3/8)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)
	Gas side	mm (inch)	12.7 (1/2)	12.7 (1/2)	16 (5/8)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)
	Max. pipe length	m	25	25	30	30	30	30	30	50	50
	Max. difference in level	m	15	15	15	20	20	20	20	30	30
Operation temp		°C	17~30	17~30	17~30	17~30	17~30	17~30	17~30	17~30	17~30
Ambient temp		°C	18~45	18~45	18~45	18~45	18~45	18~45	18~45	18~45	18~45
Qty'per 20'& 40'Fcl		Pieces	63/138/155	49/104/126	44/94/101	27/55/62	27/55/62	27/55/62	27/55/62	25/50/54	25/50/54

TECHNICAL SPECIFICATION

➧✱Floor/Ceiling YOHC (YOKC-YOJC) R-410A 50Hz Rev.291106

Model	Set		YOHC12FSA(B)AAR	YOHC18FSA(B)AAR	YOHC24FSA(B)AAR	YOHC30FSA(B)ACR	YOHC30FSA(B)AAR	YOHC36FSA(B)AAR	YOHC36FSA(B)ACR	YOHC48FSA(B)ACR	YOHC60FSA(B)ACR
	Indoor unit		YOKC12FS-A(B)AR	YOKC18FS-A(B)AR	YOKC24FS-A(B)AR	YOKC30FS-A(B)CR	YOKC30FS-A(B)AR	YOKC36FS-A(B)AR	YOKC36FS-A(B)CR	YOKC48FS-A(B)CR	YOKC60FS-A(B)CR
	Outdoor Unit		YOJC12FS-A(B)AR	YOJC18FS-A(B)AR	YOJC24FS-A(B)AR	YOJC30FS-A(B)CR	YOJC30FS-A(B)AR	YOJC36FS-A(B)AR	YOJC36FS-A(B)CR	YOJC48FS-A(B)CR	YOJC60FS-A(B)CR
Power supply		Ph-V-Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	3,380V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	3,380V, 50Hz	3,380V, 50Hz	3,380V, 50Hz
Cooling	Capacity	Btu/h	12,000	18,000	24,000	30,000	30,000	36,000	36,000	48,000	60,000
		kW	3.5	5.4	7.1	9.2	9.2	10.5	10.5	14	17
		kcal/h	3,024	4,536	6,048	7,560	7,560	9,072	9,072	12,096	15,120
	Input	W	1,200	1,900	2,700	3,750	3,750	3,750	3,750	4,700	6,000
	Rated current	A	6	8.5	12	6.3	16.3	16.3	6.6	8.2	9.8
Heating	Capacity	Btu/h	13,000	20,500	27,300	32,000	32,000	39,000	39,000	52,000	68,000
		kW	3.8	6	8	9.4	9.4	11.4	11.4	15.2	20
		kcal/h	3,276	5,166	6,880	8,064	8,064	9,828	9,828	13,104	17,136
	Input	W	1,130	1,850	2,800	3,500	3,500	3,500	3,700	4,900	6,000
	Rated current	A	5	8	12.5	5.2	15.2	15.2	6.5	8.6	9.8
Moisture Removal		L/h	1.2	1.8	2.4	3	3	3.6	3.8	4.8	6
Max. input consumption		W	1,500	2,400	3,300	4,620	4,620	4,620	4,400	5,870	7,500
Max. current		A	7	11.5	14.5	7.1	21	21	8	10.7	12.8
Starting current		A	26	36.8	61	61	97	97	61	66	67
Compressor	Type		ROTARY	ROTARY	ROTARY	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Input	W	1,145	1,870	2,430	3,650	3,650	3,650	3,650	4,750	5,750
	Rated current (RLA)	A	5.3	8.75	11.4	6.58	17.65	17.65	6.58	8.22	9.77
	Locked rotor Amp (LRA)	A	26	36.8	61	61	97	97	61	66	67
	Thermal protector		Inner	Inner	Inner	Inner	Inner	Inner	Inner	Inner	Inner
	Capacitor	μF	35/370uF/V	50/370uF/V	50/400uF/V	/	60μF/440V	60μF/440V	/	/	/
Indoor fan motor	Input	W	104/98	110/104/98	110/104/98	142/134/132	142/134/132	142/134/132	142/134/132	118/108/101	118/108/101
	Capacitor	μF	1.5μF/450V	2.5μF/450V	2.5μF/450V	3.5μF/450V	3.5μF/450V	3.5μF/450V	3.5μF/450V	2.5μF/450V	2.5μF/450V
	Speed (Hi/Med/Low)	r/min	1,190/1,000/890	1,280/1,190/1,000	1,280/1,190/1,000	1,310/1,200/1,000	1,310/1,200/1,000	1,310/1,200/1,000	1,310/1,200/1,000	820/695/620	820/695/620
Indoor coil	Number of rows		2	3	3	3	3	3	3	3	3
	Tube pitch(a) □ row pitch(b)	mm	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22
	Fin spacing	mm	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	Fin type		Hydrophilic aluminum								
	Tube outside dia. and type	mm	Ø9.53 innergroove tube								
	Coil length □ height □ width	mm	804□254□44	804□254□66	804□254□66	905□203□66	905□203□66	905□203□66	905□203□66	1,150□254□66	1,150□254□66
Indoor air flow (Hi/Mid/Low)		m³/h	600/480/400	800/600/500	1,000/900/700	1,200/1,000/800	1,400/1,200/1,000	1,400/1,200/1,000	1,400/1,200/1,000	2,000/1,800/1,600	2,000/1,800/1,600
Indoor noise level (Hi/Mid/Lo)		dB(A)	43/41/38	43/41/38	45/43/40	45/43/40	45/43/40	45/43/40	45/43/40	47/45/42	47/45/42
Indoor unit	Dimension (W*H*D)	mm	995□660□198	995□660□198	995□660□198	1,285□660□198	1,285□660□198	1,285□660□198	1,285□660□198	1,670□680□240	1,670□680□240
	Packing (W*H*D)	mm	1,075□744□278	1,075□744□278	1,075□744□278	1,365□744□278	1,365□744□278	1,365□744□278	1,365□744□278	1,764□760□329	1,764□760□329
	Net/Gross weight	kg	29/35	30/37	30/37	34/42	34/42	34/42	34/42	52/62	52/62
Outdoor fan motor	Input	W	56	130	130	307	307	307	307	138+156	138+156
	Capacitor	μF	2.5uF/450V	2.5uF/450V	3uF/450V	10uF/450V	10uF/450V	10uF/450V	10uF/450V	3.5□2uF/450V	3.5□2uF/450V
	Speed	r/min	800	750	800	740	740	740	740	800	800
Outdoor coil	Number of rows		2	2	2	2	2	2	2	2	2
	Tube pitch(a) □ row pitch(b)	mm	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22	25.4□22
	Fin spacing	mm	1.4	1.7	1.5	1.7	1.7	1.7	1.7	1.8	1.8
	Fin type		Hydrophilic aluminum			Unhydrophilic aluminium				Hydrophilic aluminum	
	Tube outside dia. and type	mm	Ø9.53x0.35,Innergroove tube								
	Coil length □ height □ width	mm	651□559□44	775□660□44	850□810□44	955□915□44	955□915□44	955□915□44	955□915□44	715□1220□44	715□1220□44
	Number of circuits		2	3	4	8	8	8	8	4	4
Outdoor air flow		m³/h	2,100	2,400	3,000	5,000	5,000	5,000	5,000	6,000	6,000
Outdoor noise level		dB(A)	43	48	55	57	57	57	57	58	58
Outdoor unit	Dimension (W*H*D)	mm	760□590□285	845□695□335	895□860□330	990□960□360	990□960□360	990□960□360	990□960□360	940□1,245□340	940□1,245□340
	Packing (W*H*D)	mm	887□655□355	970□770□395	1,043□915□395	1,120□1,090□435	1,120□1,090□435	1,120□1,090□435	1,120□1,090□435	1,058□1,380□435	1,058□1,380□435
	Net/Gross weight	kg	44/48	57/62	68/70	90/102	90/102	90/102	90/102	112/127	112/127
Refrigerant type/Quantity		g	R-410A/1,120	R-410A/2,050	R-410A/2,600	R-410A/3,100	R-410A/3,450	R-410A/3,450	R-410A/3,100	R-410A/4,000	R-410A/4,200
Design pressure (high side/low side)		MPa	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5	4.2/2.5
Refrigerant piping	Liquid side	mm (inch)	6.35 (1/4)	6.35 (1/4)	9.53 (3/8)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)	12.7 (1/2)
	Gas side	mm (inch)	12.7 (1/2)	12.7 (1/2)	16 (5/8)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)	19 (3/4)
	Max. pipe length	m	25	25	30	30	30	30	30	50	50
	Max. difference in level	m	15	15	15	20	20	20	20	30	30
Operation temp		°C	17~30	17~30	17~30	17~30	17~30	17~30	17~30	17~30	17~30
Ambient temp		°C	-7~45	-7~45	-7~45	-7~45	-7~45	-7~45	-7~45	-7~45	-7~45
Qty'per 20'& 40'Fcl		Pieces	63/138/155	49/104/126	44/94/101	27/55/62	27/55/62	27/55/62	27/55/62	25/50/54	25/50/54

➧✱Floor/Ceiling DC Inverter "YOHC" R-410A, 50Hz

Model	Set		YOHC18DSBAAR	YOHC24DSBAAR	YOHC36DSBACR	YOHC48DSBACR	YOHC60DSBACR
	Indoor		YOKC18DS-BAR	YOKC24DS-BAR	YOKC36DS-BCR	YOKC48DS-BCR	YOKC60DS-BCR
	Outdoor		YOJC18DS-BAR	YOJC24DS-BAR	YOJC36DS-BCR	YOJC48DS-BCR	YOJC60DS-BCR
Power supply		V-Ph-Hz	220~240-1-50	220~240-1-50	380V~3~ 50Hz	380V~3~ 50Hz	380V~3~ 50Hz
Cooling	Capacity	Btu/h	18,000	24,000	36,000	48,000	60,000
	Input	W	1,550	2,220	3,290	4,300	4,940
	Rated current	A	6.8	9.25	8.77	11.47	11.47
Heating	Capacity	Btu/h	21,000	28,000	40,000	53,000	62,000
	Input	W	1,680	2,250	3,160	4,170	4,880
	Rated current	A	7.35	9.4	8.33	10.99	11.4
Max. input consumption		W	2,500	2,750	3,880	4,850	5,990
Max. current		A	10	11	10.17	12.98	15.69
Starting current		A	1.08	1.15	1.1	1.16	1.23
Compressor	Type		DC Inverter Rotary			DC Inverter Scroll	
	Input	W	1,650	1,650	3,665	3,665	3,665
	Rated current (RLA)	A	8	8	7.8	7.8	7.8
	Locked rotor Amp (LRA)	A	28	28	28	28	28
	Protector		Thermal				
	Capacitor	μF	50	50	50	50	50
	Refrigerant oil	ml	480	480	500	500	500
Indoor fan motor	Type		AC Motor				
	Input	W	110	110	134	89.5	59
	Capacitor	μF	2.5	2.5	3.5	2.5	2.5
	Speed (Hi/Me/Lo)	r/min	1,310/1,190/1,020	1,310/1,190/1,020	1,265/1,165/1,075	1,170/1,070/995	1,145*1,035*975
Indoor coil	Number of rows		3	3	3	3	3
	Fin spacing	mm	1.8	1.8	1.8	1.8	1.8
	Fin type		Hydrophilic aluminium				
	Tube outside dia.	mm	Ø9.52				
	Tube Material		Innergroove tube				
	Coil length □ height □ width	mm	828□254□66	828□254□66	905□203□66	1150□254□66	1150□254□66
Indoor air flow (Hi/Me/Lo)		m³/h	910/810/700	910/810/700	1,400/1,200/1,000	2,000/1,800/1,600	2,000/1,800/1,600
Indoor noise level (Hi/Me/Lo)		dB(A)	49.5/-/-	53/-/-	45/43/40	47/45/42	47/45/42
Indoor unit	Dimension (W*H*D)	mm	980□660□195	980□660□195	1,285□660□198	1,670□680□240	1,670□680□240
	Packing (W*H*D)	mm	1,089□744□296	1,089□744□296	1,379□744□296	1,764□760□329	1,764□760□329
	Net/Gross weight	kg	29/35	29/35	37/42	54/61	54/61
Outdoor fan motor	Input	W	129	150	307	150*2	150*2
	Capacitor	μF	3	3	10	3.5*2	3.5*2
	Speed	r/min	770	800	740	800	800
Outdoor coil	Number of rows		2	2	1	1	1
	Fin spacing	mm	1.7	1.5	1.7	1.8	1.8
	Fin type		Hydrophilic aluminium				
	Tube outside dia.	mm	Ø9.52				
	Tube Material		Innergroove tube				
	Coil length □ height □ width	mm	630□660□44	620□813□44	955□915□22	715□610□22	1,150□305□66
	Number of circuits		4	2	8	4	4
Outdoor air flow		m³/h	2,400	3,000	5,000	6,000	6,000
Outdoor noise level		dB(A)	56	55	57	58	58
Outdoor unit	Dimension (W*H*D)	mm	840□677□310	894□860□302	990□960□340	940□1,245□340	940□1,245□340
	Packing (W*H*D)	mm	965□770□395	1,043□915□395	1,120□1,015□435	1,058□1,300□435	1,058□1,300□435
	Net/Gross weight	kg	62.5/66.5	72/76.5	106/111	117/126	112/127
Refrigerant R-410A		g	1,650	2,200	2,600	3,550	4,200
Throttle type			EXV&Capillary				
Refrigerant piping	Liquid side/Gas side	mm	6.35/12.7	9.53/16	9.53/16	9.53/16	9.53/16

Remark: The above design and specifications are subject to change without prior notice for product improvement.

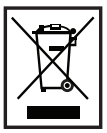
DE - COMMISSIONING DISMANTLING & DISPOSAL

This product contains refrigerant under pressure, rotating parts, and electrical connections which may be a danger and cause injury!
All work must only be carried out by competent persons using suitable protective clothing and safety precautions.

Read the Manual

Risk of electric shock

Unit is remotely controlled and may start without warning



1. Isolate all sources of electrical supply to the unit including any control system supplies switched by the unit. Ensure that all points of electrical and gas isolation are secured in the OFF position. The supply cables and gas pipework may then be disconnected and removed. For points of connection refer to unit installation instructions.
2. Remove all refrigerant from each system of the unit into a suitable container using a refrigerant reclaim or recovery unit. This refrigerant may then be reused, if appropriate, or returned to the manufacturer for disposal. **Under No circumstances should refrigerant be vented to atmosphere.** Where appropriate, drain the refrigerant oil from each system into a suitable container and dispose of according to local laws and regulations governing disposal of oily wastes.
3. Packaged unit can generally be removed in one piece after disconnection as above. Any fixing down bolts should be removed and then unit lifted from position using the points provided and equipment of adequate lifting capacity. Reference MUST be made to the unit installation instructions for unit weight and correct methods of lifting. Note that any residual or spilt refrigerant oil should be mopped up and disposed of as described above.
4. After removal from position the unit parts may be disposed of according to local laws and regulations.

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